

AMENDMENTS TO THE SPECIFICATION WITH MARKINGS TO SHOW CHANGES MADE

Amend the following paragraph(s):

[0005] -- The object is solved in that the squirrel-cage rotor has a cage winding made of flexible conductors, in particular stranded ~~wires~~ conductors.--.

[0006] -- This eliminates vibration fatigue and shortens the projection of the conductors over the ~~armature~~ lamination stack of the squirrel-cage rotor. The required short-circuit or cage connection is advantageously provided within the slots by electrically contacting, in particular, two electric conductors, in particular stranded conductors, placed in a slot in opposite directions. Electric contact is made, for example, by pressing.--.

[0010] -- The projection of the meandering conductors over the end faces of the squirrel-cage rotor according to the invention is relatively short. Because the electric conductors, in particular the stranded conductors, are flexible, holding elements are provided in one exemplary embodiment for absorbing the centrifugal forces during operation of the electric machine. These holding elements are made of a high-strength, electrically insulating material suitable for absorbing the centrifugal forces of the stranded conductors outside the ~~armature~~ lamination stack. The holding elements are here implemented as a simple ring, but also as a trough-shaped, cap-like element, which at least partially encloses the projections. Advantageously, additional fan blades are provided on the holding element, which can either be attached separately on the holding element or be already, for example, cast during the manufacturing process.--.

[0012] -- FIG. 1 schematically, a squirrel-cage rotor winding according to the invention, and--.

[0013] -- FIG. 2 a detail of the holding rings;
FIG. 3 a schematic depiction of a pitch of twisting of a stranded conductor;
FIGS. 4-6 various cross sections of the stranded conductor;
FIGS. 7-9 various cross sections of filaments of the stranded conductor;
FIG. 10 an arrangement of stranded conductors in alternating pattern;
FIG. 11 an illustration similar to FIG. 2 with fan blades; and
FIGS. 12-14 various illustrations of implementing an electric contact between stranded conductors.--.

[0014] -- [[Fig]] FIG. 1 shows, in an unrolled view, a squirrel-cage rotor with an armature a lamination stack 1 that includes several exemplary slots n , $n+1$, $n+2$, which are machined out of the armature lamination stack 1. A conductor L2 is located in a lower layer of these slots and is wound in the opposite direction relative to a conductor L1 in an upper layer through the slots in a meander pattern. The conductors L1 and L2 are preferably stranded conductors consisting of individual filaments. The stranded conductors are twisted with a predeterminable pitch 10, as shown by way of in FIG. 3.--.

[0015] -- The conductors L1 and L2 are electrically contacted preferably by pressing on the preferably bare stranded conductors in the slots n , $n+1$, $n+2$. The slot walls hereby provide the required back pressure. However, other types of electric contacts are possible, for example, by a conducting potting compound 7, as shown in FIG. 13, which can be filled into the slots or into certain predeterminable axial slot regions, for example, after the conductors have been installed. This also fixes the stranded conductors in the slot. It is also possible to provide the electric contact between the stranded conductors L1, L2 immediately

after the stranded conductors L1, L2 exit the armature lamination stack 1, as shown in FIG. 14.--.

[0017] -- In another embodiment, a mechanical contact can be provided by electrically conducting, mechanical elements 4 which can be, for example, driven into these regions, as shown by way of example in FIG. 12.--.

[0019] -- Advantageous, in particular with semi-open or closed slots n, n+1, n+2, the aforescribed contacting operations can be performed in the regions 3, i.e., immediately after the conductors L1 and L2 exit from the ~~armature-~~ lamination stack 1.--

[0021] --[[Fig]] FIG. 2 shows a detail of the front face of the ~~armature~~ lamination stack 1. Since the projections of the squirrel-cage winding are now fabricated from stranded conductors, each of the conductors L1 and L2 is supported against centrifugal forces by a corresponding holding element, which is preferably implemented as a holding ring 2. In particular, the holding ring 2 is made of an electrically insulating material capable of absorbing the centrifugal forces. Pressed or pinched connections along sections can also be used to provide electric contact outside the ~~armature~~ lamination stack 1 in the region of the holding ring 2. As shown by way of example in FIG. 11, additional fan blades 6 can be provided on the holding element 2 and either be attached separately on the holding element 2 or already, for example, cast during the manufacturing process.--.

[0023] -- According to another embodiment, the stranded conductors are no longer routed in parallel outside the ~~armature~~ lamination stack 1. Each stranded conductors can then follow the shortest path to the next planned slot, whereby the next planned slot need not necessarily be the directly adjacent slot.--.